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## **Intelligent Lift Interlock System (ILIS606-G) Installation Instructions**

**2009 Chevrolet 560 (8.1L) Gas**

To aid in installation, first gain access to the connection points. Remove the lower dash panel below the steering column. Also, gain access to the lift power switch and the lift door switch circuits. These are usually accessible in the front control panel.

**Always disconnect the battery when installing any electronic components.**

### **LED DISPLAY PANEL (8-Pin Connector)**

- Locate a suitable position on the dashboard, within view of the driver for the mounting of the ILIS LED Display Panel. The length of the display harness is 40". This is the maximum distance the display can be from the ILIS control module. Drill a 1" hole in the dashboard where you wish the center of the display to be. Attach the 8-pin end of the LED harness to the ILIS control module. Run the 10-pin end of the harness under the dash and out through the 1" hole. Attach the 10-pin end of the display harness to the ILIS LED Display Panel. Ensure panel is level, and secure using the supplied screws.

### **IGNITION POWER HARNESS**

- **Ignition Power Circuit** - Attach the Red Wire from the 6-Pin Ignition Power connector (Blue Tape) to an ignition power source. (Hot in run and start.) Plug the 6-Pin Ignition Power connector (Blue Tape) into the 6-Pin Ignition Power socket (Blue Dot) on the ILIS606-G control module.

### **DOOR HARNESS**

- **Lift Door Switch Circuit** - Extend the Gray Wire by stripping the insulation, soldering, and heat shrinking the connection. Attach the extended Gray Wire from the 4-Pin Door Harness connector (Orange Tape) to the Lift Door Input. (Must provide a ground signal when the Lift Door is Open.)
- **Lift Disable Switch Circuit** - Attach the Blue Wire from the 4-Pin Door Harness connector to a switched to ground lift disable switch. (Installer Supplied.) Switch must provide a ground signal when closed. Plug the 4-Pin Door connector (Orange Tape) into the 4-Pin Door socket (Orange Dot) on the ILIS606-G control module.

### **LIFT HARNESS**

- **Vehicle Secure Circuit** - Extend the Orange Wire by stripping the insulation, soldering, and heat shrinking the connection. Attach the Orange Wire from the 6-Pin Lift Harness connector (Yellow Tape) to the Lift Secure Signal input at the lift. The Vehicle Secure circuit must only activate the vehicle secure input on the lift and must not draw more than **8.0 Amps** (see lift manufacturers installation instructions). **Do not power any other loads (ie: lights, motors, etc.) off this circuit that increase the current draw to greater than 8.0 amps.**

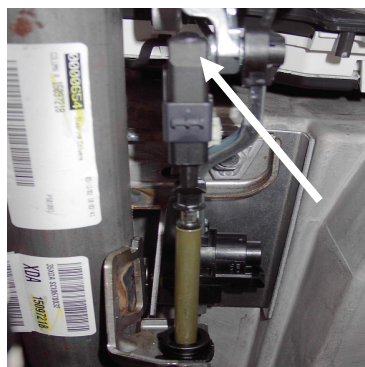
## Shift Lock Bracket & Solenoid



- Loosen both nuts holding steering column to I/P brace.



- Switch OEM shift cable from right-side ball stud to left-side ball stud.



- Slide ILIS bracket and shift lock solenoid assembly between I/P brace and steering column flange.

- Attach shift lock solenoid arm to right-side ball stud.

- Retighten both nuts holding steering column to I/P brace. Verify proper motion of shift lock solenoid by shifting transmission through all ranges (P-R-N-D-2-1). Shift lock solenoid can be adjusted for various lengths by releasing the retaining clip and sliding the solenoid coil along the shaft of the assembly.

- **Shift Lock Circuit** - Plug the ILIS 2-pin connector, on the Blue Wire Pin #4 from the 6-Pin Lift Harness connector (Yellow Tape), to the InterMotive supplied Shift Lock Solenoid.

**NOTE: THE ILIS SHIFT LOCK SOLENOID WILL NOT ACT AS AN OEM BRAKE SHIFT INTERLOCK. TRANSMISSION IS ONLY LOCKED IN PARK IF PARK BRAKE IS SET AND/OR LIFT DOOR IS OPEN.**

- **Ground Circuit** – Attach the Black, ground circuit eyelet to a known good ground point.
- Plug the 6-Pin Lift connector (Yellow Tape) into the 6-Pin Door socket (Yellow Dot) on the ILIS606-G control module.

- **Park Brake Circuit** - Disconnect the black, single-wire OEM connector from the park brake switch. Plug the female side of the Black connector from the Brown Wire at Pin #4 on the 6-Pin Lift Harness connector (Yellow Tape) into the parking brake switch. Install the male spade side to the female connector in the OEM harness. (See Fig. 1)

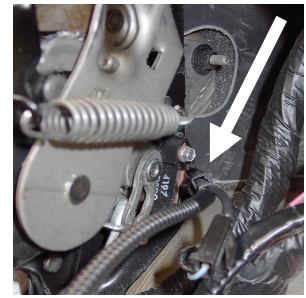


Fig. 1

## **PARK HARNESS**

- **Internal Transmission Range Sensor** - Locate the transmission harness connector on the transmission case. It is a 24 pin connector. For this connection, you will use the **two green wires** from the ILIS Park harness. These two wires are interchangeable, but they both must be used. Attach one of the green wires from the ILIS Park harness in parallel to the Yellow wire in cavity 21 by stripping the insulation, soldering, and using a **watertight sealer** on the connection anywhere along the length of this wire. **Do not cut the wire.** Attach the other green wire from the ILIS Park harness in parallel to the Gray wire in cavity 20, by stripping the insulation, soldering, and using a watertight sealer on the connection anywhere along the length of this wire. **Do not cut the wire.**
- **Park Output Circuit** – This is an optional circuit that provides a ground in Park gear only. This circuit is useful if the operator wishes to activate or deactivate an accessory only in Park (ie: power operated front door). Attach the **White** wire from the Park harness to the ground side of the accessory. If this option is not desired, cut the **White** wire at the 4-pin connector and discard the wire. **Note: This output can only carry low current loads such as a relay primary coil. Higher loads can cause damage to the control module. The current of the load must first be determined and can not exceed 500 milliamps continuous load. This wire must not be attached directly to power without a load, or damage to the control module will result.**
- Plug the 4-Pin Park connector (Black Tape) into the 4-Pin Park socket (No Dot) on the ILIS606-G control module

## **POWER/GROUND HARNESS**

- **Battery Power Circuit** - Attach the Red wire, Pin #1, from the 6-Pin Power/Ground connector (Red Tape) to a fused Battery power source. **(Hot at all times.)**
- **Ground Circuit** - Attach the Black wire, Pin #2 and #4, with the ground circuit eyelet to a known good ground point.
- Plug the 6-Pin Power/Ground connector (Red Tape) into the 6-Pin Power/Ground socket (Red Dot) on the ILIS606-G control module.

**Check all connections, then reconnect battery, and reinstall lower steering column trim cover.**

**ILIS606-G Interlock must pass the Post Installation System test before the installation is complete.**



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## **ILIS 606-G - Post Installation Testing**

### **THE FOLLOWING PROCEDURE MUST BE PERFORMED TO VERIFY PROPER INSTALLATION:**

1. Set Park Brake, place transmission to Park position, and close lift door. Turn ignition to the "Run" position. Do not start vehicle.
2. Verify LED prove-out on LED Status Panel.
3. All five (5) upper LEDs should illuminate for approximately two seconds upon initial power on. The lower Icon LED's are backlit and should remain illuminated whenever the module is awake.
4. Verify that the Park LED, the Park Brake LED and the Shift Lock LED remain illuminated.
5. Place foot on service brake and attempt to shift out of Park. Shift lever must not be allowed to shift out of the Park position.
6. Place wheel chocks under the vehicle tires. Release Park Brake. Verify Park Brake LED and the Shift Lock LED on the LED Status panel are no longer illuminated. Place foot on service brake and shift out of Park. Verify that all upper LED's are not illuminated with the transmission in any other range.
7. Place shift lever back to the Park position and verify that the Park LED on the LED Status Panel is illuminated.
8. With Park Brake still released, have an assistant open the lift door(s). Verify that the Lift Door LED and the Shift Lock LED on the LED Status Panel are now illuminated. Place foot on service brake and attempt to shift out of Park. Shift lever must not be allowed to shift out of "Park" position.
9. Set Park Brake. Verify that the Park Brake LED on LED Status Panel is again illuminated. Verify that the Vehicle Secure LED on the LED Status Panel is also now illuminated. All five (5) upper LEDs on the LED Status Panel should now be illuminated. The lift should now be operational. Stow lift, when complete.
10. Lift stowed, leave lift doors open, Park Brake applied, and vehicle in Park. Turn off ignition key. Verify that the lift lamps and /or lift buzzer cycle on and off and that the Lift Door LED flashes rapidly. Close lift doors and verify that all upper LED's turn off and that the lift lamps and /or buzzer also turn off. The lower backlit icons will stay on for several minutes.
11. Turn ignition back to on, release Park Brake. Verify that the Park Brake LED and Vehicle Secure LED on the LED Status Panel are not illuminated. Have assistant attempt to operate lift. The lift must not be operational.
12. Set Park Brake. Stow lift and close lift door(s). Turn ignition off.
13. Fill out online warranty registration card at [www.intermotive.net](http://www.intermotive.net) and return to InterMotive Vehicle Controls.
14. If any irregular operational issues persist, contact InterMotive at 530-823-1048 for technical assistance.



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## ILIS606-G - Operating Instructions

The Intelligent Lift Interlock System option is a microprocessor driven system for controlling wheelchair lift operation. Lift operation will only be allowed when all of the following conditions are met:

1. The vehicle is in "Park"
2. The parking brake is applied.
3. The vehicle ignition is on.
4. The lift door is open.
5. Lift inhibit switch is not activated.

The Intelligent Lift Interlock System (ILIS) will not allow the vehicle to be shifted out of park if the lift door is open. As an added feature, it also will not allow the vehicle to be shifted out of park anytime the parking brake is applied. This feature eliminates excessive parking brake wear due to driving with the parking brake applied.

**NOTE: THE ILIS SHIFT LOCK SOLENOID WILL NOT ACT AS AN OEM BRAKE SHIFT INTERLOCK. TRANSMISSION IS ONLY LOCKED IN PARK, IF PARK BRAKE IS SET AND/OR LIFT DOOR IS OPEN.**

When the vehicle is first started, or if the key is turned to the "Run" position, the five upper LED's on the display panel will illuminate for 2 seconds as a prove out of the LED's. The lower Icon LED's are backlit and should remain illuminated whenever the module is awake. The module will stay awake for several minutes after the ignition is turned off. After prove out, the operation of the LED panel is as follows:

- Vehicle Secure – Illuminates in green if the lift is enabled. This means that all conditions for lift operation have been met and the lift has been supplied a vehicle secure signal.
- Park Brake – Illuminates in red when the parking brake is applied.
- Park - Illuminates in red when the vehicle transmission is in the park range.
- Door Open - Illuminates in red when the lift door is open.
- Shift Lock - Illuminates in amber when the lift door is open and/or the parking brake is applied. If illuminated, the driver will not be allowed to shift out of park.

**Threshold warning system operation** - If the lift door is left open when the ignition is turned off, the Gateway Module will remain on and the lift lamps and /or lift buzzer will cycle on and off. The Lift Door LED on the ILIS Display will also flash rapidly. If the lift is not stowed, the threshold warning system on the lift will also be operational. The driver must turn the ignition back to run, stow the lift, close the lift door, then turn the ignition to off. This feature is intended to ensure that the lift is stowed and the lift doors are closed when the vehicle is not being used

DATE : 1/19/09	CHANGE : Added I/O port pin 4
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DATE CHECKED :  
11/20/08